



UNIVERSITÉ
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Cognitive debiasing: mitigating biases in recruitment decisions

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Outline

1. Heuristics and biases
2. The Halo effect
3. Confirmation bias

Heuristics and biases

Edward Wilson, *Harvard Magazine* (2009)



*“The real problem of humanity is the following:
We have Paleolithic emotions, medieval
institutions and godlike technology.”*

Heuristics and biases

- Human cognition has been selected by evolution to efficiently respond to adaptive problems: Perceiving, Deciding, Acting, ...
- Difficulties: lack of stimulus, time and effort constraints
- Solution: using prior beliefs and **heuristics** (quick and low-cost mental shortcuts), which allow us to achieve *satisfactory* performance
- Limitation: If the environment changes, these prior beliefs and heuristics may become inadequate, potentially turning into **cognitive biases**

Heuristics and biases

Example

- Predicting the future based on the past
 - Valid when it comes to anticipating tomorrow's weather
 - Not valid when events are independent

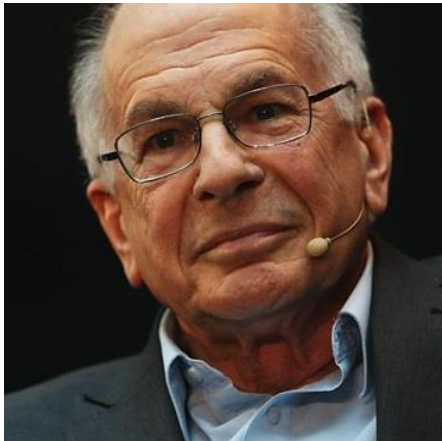
Casino games -> *Gambler's fallacy*

Basketball -> *Hot hand fallacy*

Gilovich, T., Vallone, R., & Tversky, A. (1985). The hot hand in basketball: On the misperception of random sequences. *Cognitive Psychology*, 17(3), 295–314.

Heuristics and biases

- The Heuristics-and-biases program (Tversky & Kahneman, 1974)



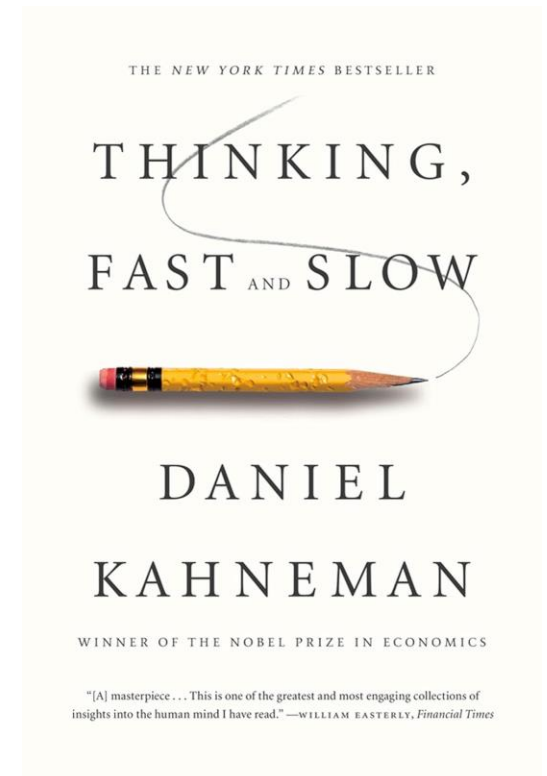
Judgment under Uncertainty: Heuristics and Biases

Biases in judgments reveal some heuristics of
thinking under uncertainty.

Amos Tversky and Daniel Kahneman



Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty:
Heuristics and biases. *Science*, 185(4157), 1124–1131.



Heuristics and biases

Three myths about cognitive biases ([Berthet](#), 2023)

- There are 250 cognitive biases
- Everyone is susceptible to cognitive biases to the same extent
- Cognitive biases are impossible to overcome

Heuristics and biases

Three myths about cognitive biases ([Berthet, 2023](#))

- There are 250 cognitive biases

A small number of biases explains a large number of decision errors

- Everyone is susceptible to cognitive biases to the same extent

Systematic individual differences are observed for each cognitive bias

- Cognitive biases are impossible to overcome

Debiasing techniques can be effective

The Halo effect

- The **halo effect** is the tendency to attribute general positive or negative qualities to a person, brand, or product based on a first impression or a specific characteristic (Thorndike, 1920; Nisbett & Wilson, 1977)

DEGREE IN SIGHT

First impressions count

Whether on a job interview or in a lab meeting, how you look and act can matter as much as your ideas.

By Mark Rowh



The Halo effect

Example: What do you think of Alan and Ben? (Asch, 1946)

- Alan: intelligent, industrious, impulsive, critical, stubborn, envious
- Ben: envious, stubborn, critical, impulsive, industrious, intelligent

Asch, S. E. (1946). Forming impressions of personality. *The Journal of Abnormal and Social Psychology*, 41(3), 258–290.

The Halo effect

Debiasing the Halo effect in an interview (Kahneman, 2011)

- List a set of relevant traits (e.g. leadership, critical thinking)
- List a set of questions for each trait
- Score each trait (e.g. using a 5-point Likert scale)

=> Decouple the ratings of the traits



Confirmation bias

- **Confirmation bias** is the tendency to search for, interpret, favor, and recall information in a way that confirms or supports one's prior beliefs or values (Nickerson, 1998)



Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of General Psychology*, 2(2), 175–220.

Confirmation bias

The 2-4-6 task (Wason, 1960; Berthet et al., [2024](#))

You are starting a game in which your opponent has set a rule that generates sequences of three numbers. Your objective is to discover this rule.

To do this, you propose sequences of numbers, and your opponent tells you whether each sequence conforms to the rule or not.

He starts by telling you that the sequence of numbers 2-4-6 conforms to the rule. You think the rule is 'add 2'.

What sequence(s) would you propose to test this rule?

8-10-12

3-6-9

Confirmation bias

Debiasing confirmation bias

- Confirmation bias occurs when one favors a particular hypothesis without sufficiently considering alternative hypotheses
- The **consider-the-opposite** technique prompts individuals to consider alternatives (Lord et al., 1984), thereby helping them escape tunnel vision

Lord, C. G., Lepper, M. R., & Preston, E. (1984). Considering the opposite: A corrective strategy for social judgment. *Journal of Personality and Social Psychology*, 47(6), 1231–1243.

Confirmation bias in recruitment

- Interpersonal interactions often occur in a context in which at least one of the participants in the interaction has **an expectation** about the other
- An employer typically may interview a candidate for a job after having thoroughly examined the candidate's resume and references, giving the interviewer a rich source of expectations about the candidate's attributes

Confirmation bias

The interview task (Snyder & Swann, 1978; Berthet, [2021](#), [2022](#), [2024](#))

You are going to conduct a job interview with a candidate. For the job in question, the personality trait Agreeableness is particularly important.

The candidate has already undergone an initial interview with one of your colleagues, who noted in their report that the candidate appears to be an agreeable person.

*From the 10 questions below, select the 4 that you would ask the candidate **to test the hypothesis that she is an agreeable person.***

Confirmation bias

The interview task (Snyder & Swann, 1978; Berthet, [2021](#), [2022](#), [2024](#))

- 4 Confirmatory questions

E.g. “Tell me about a time you held yourself publicly accountable for a mistake you made”

- 4 Disconfirmatory questions

E.g. “Tell me about a time when your quick temper got you in trouble?”

- 2 Neutral questions

Confirmation bias

The interview task (Snyder & Swann, 1978; Berthet, [2021](#), [2022](#), [2024](#))

- 3 or 4 items
- Raw score = number of confirmatory questions – number of disconfirmatory questions

Confirmation bias

- A consider-the-opposite intervention

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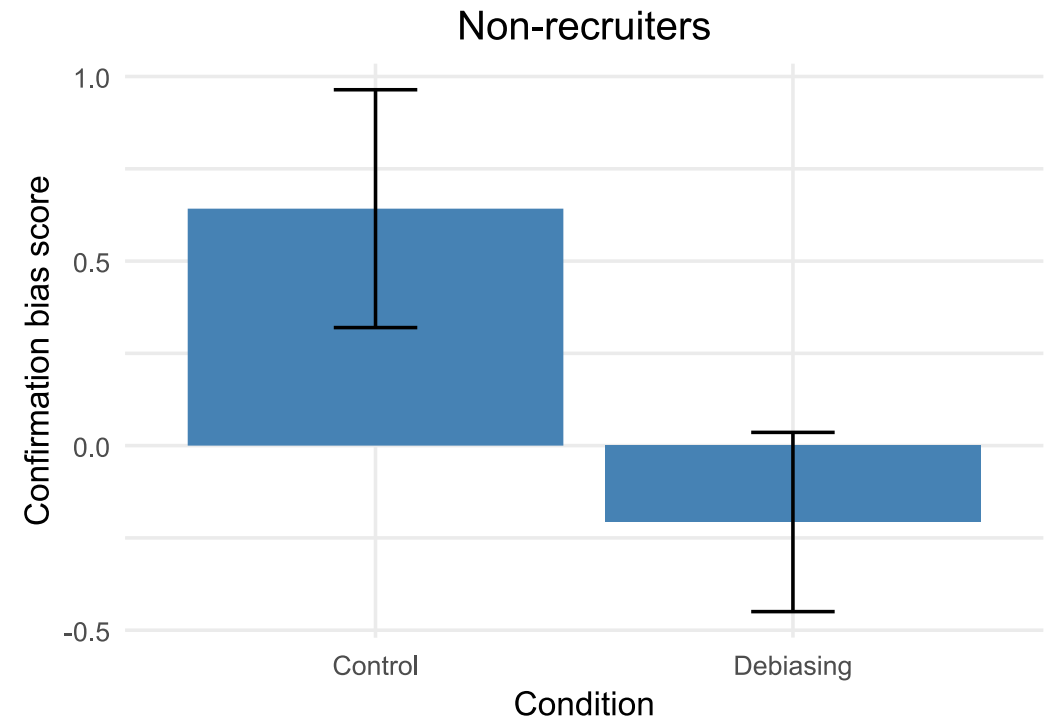
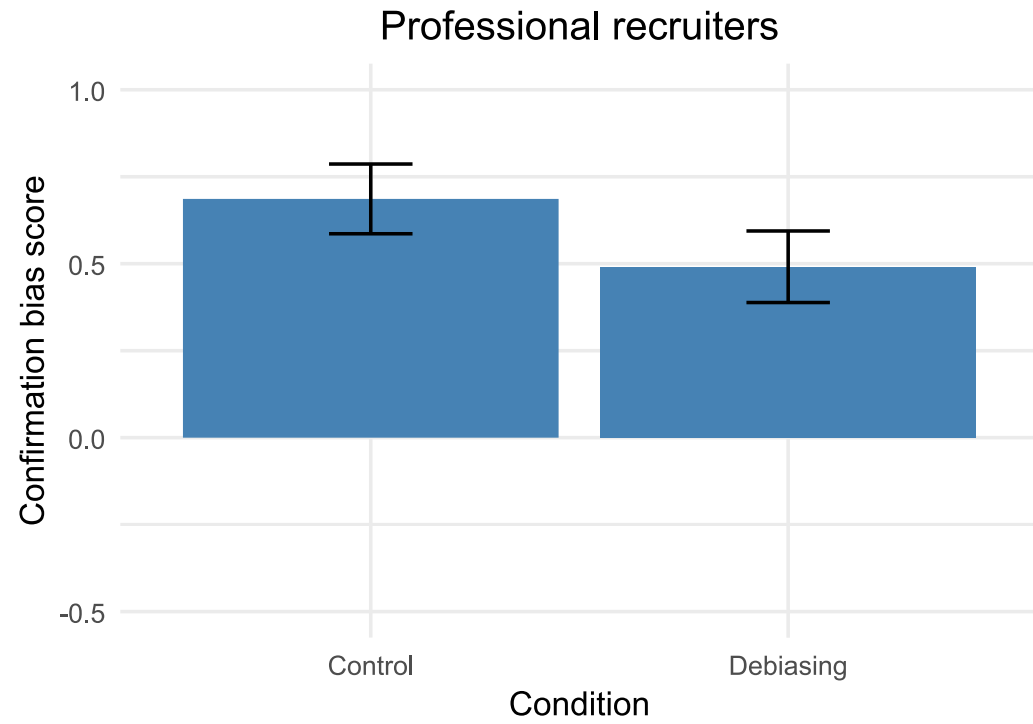
Don't forget to consider the possibility that the candidate may not be an agreeable person

Confirmation bias

Pilot Study (Berthet & de Gardelle)

- Design: Condition (Control vs. Debiasing) × Status (Professional Recruiters vs. Non-Recruiters)
- Professional Recruiters (N=197)
- Non-Recruiters (N=56)

Confirmation bias



Conclusion

- **Cognitive debiasing** is a promising approach to improving recruiting decisions
- But further research is needed to determine the conditions under which it is most effective
- Developing more ecologically valid tasks to assess cognitive biases in recruitment

Merci pour votre attention !